

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS, EASTERN DIVISION

ABC Corporation I and ABC Corporation II,
Plaintiffs

v.
THE PARTNERSHIPS AND
UNINCORPORATED ASSOCIATIONS
IDENTIFIED ON SCHEDULE A,
Defendants.

Case No. :20-cv-04806
Judge Thomas M. Durkin
Magistrate Judge Jeffery Cole

PAUL HATCH REBUTTAL TO
LANCE RAKE DECLARATION

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I. EXECUTIVE SUMMARY

Based upon the legal principles explained to me and my examination of the Rake Declarations, Defendant's Infringing products, the Patents-In-Suit and their file histories, and the prior art, it is my opinion that:

- The reliability and credibility of the Rake Declarations is undermined by many errors.
- The opinions in the Rake Declarations include contradictory positions that may further significantly undermine his credibility.
- The analysis in the Rake Declarations rely upon an incorrect understanding of the ordinary observer test and also omit defining the level of attention of the ordinary observer.
- The Rake Declarations are missing critical steps of infringement analysis including failing to expressly construe the scope of the Patents-In-Suit.
- The opinions in the Rake Declarations rely upon unrelated patents without providing analysis or evidence.
- Mr. Rake's evidence improperly relies upon dimensions and considers ornamental elements of the claimed designs as functional without analysis or evidence.
- Mr. Rake improperly relies upon comparing unclaimed areas and also relies upon individual differences being 'obvious' instead of comparing the overall impression.

It is my opinion that the overall appearance of each the Infringing Products is not "plainly dissimilar" to one or more of the Claimed Designs of the Patents-In-Issue.

Further, an ordinary observer familiar with the prior art, giving such attention as a purchaser usually gives, would find the overall appearance of the Infringing Product to be substantially the same as the overall appearance of one or more of the claimed designs of the Patents-In-Issue in light of the prior art, inducing him or her to purchase each Infringing Product supposing it to be the Claimed Design.

II. SCOPE OF OPINIONS

I have been retained by counsel as an independent expert witness to provide my opinion regarding the above litigation matter, and matters related to the U.S. Patents D737,723, D738,256, D784,195, and D785,112 ("the Patents-In-Suit"). (Dkt. 37-11). I also hereby provide my rebuttal to Mr. Rake's Declaration of August 23rd, 2021 ("Rake1") (Dkt. 376), and Mr. Rake's subsequent four declarations, dated September 3rd, 2021 ("Rake2-5") (Dkts. 413-4, 414-4, 419-4, 420-4, and 421-4). This declaration is an addition to my previous declaration in support of Plaintiffs Hangzhou Chic Intelligent Technology Co., Ltd. and Unicorn Global Inc.'s (collectively, "Hangzhou") motion for a preliminary injunction. In this rebuttal declaration I may from time-to-time refer back to my recent declaration The Expert Declaration of Paul Hatch Regarding Infringement, dated August 24, 2021 ("Hatch Declaration") (Dkt. 388).

I understand my task is to review materials and offer my opinion, perspective, and insights regarding this subject. I hold the opinions expressed in this declaration, but as my study of the

case continues, I may acquire additional information that leads to new insights relevant to these opinions. With that in mind, I reserve the right to supplement this declaration further if and when such additional information becomes known to me. I may also provide supplemental and rebuttal declarations in response to arguments which may be proposed by the Defendants.

A. Background and Qualifications

I incorporate by reference my background and qualifications as outlined in my previous declaration. See Hatch § I.B.

B. Compensation and Prior Testimony

I am being compensated at a rate of \$450 per hour to provide analysis and testimony in this proceeding. My compensation is not contingent on the outcome of any matter or the specifics of my testimony. I have no financial interest in the outcome of this matter.

C. Materials and Information Considered

In forming my opinions, I have reviewed the Rake Declarations, their referenced prior art, the Infringing Products, the 'D857 Patent, the claimed designs of the Patents-In-Suit, their file history, and the prior art cited on the face of the patents.

III. LEGAL STANDARDS

A similar legal standards section was presented in my prior declarations, but it is worth restating here again because of the mischaracterization by the Gyroor Defendants.

It is my understanding that “[w]hether a design patent is infringed is determined by first **construing the claim** to the design, when appropriate, and then comparing it to the design of the accused device.” *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1404 (Fed. Cir. 1997) (citing *Elmer v. ICC Fabricating, Inc.*, 67 F.3d 1571, 1577 (Fed. Cir. 1995)). To construe the scope of a design patent, I understand that one must **consider whether the figures identify unclaimed subject matter** (e.g., features depicted in broken lines); and whether the **prosecution history** of the application shows if the applicant disclaimed subject matter or distinguished the Claimed Design from other ornamental designs. *See Goodyear Tire*, 162 F.3d at 1116.

I am also informed that the Manual of Patent Examining Procedure (“MPEP”) provides guidance on how broken lines are to be used in design patent drawings. U.S. Pat. & Trademark Office, Manual of Patent Examining Procedure § 1503.02 (9th ed. 2018). Section 1503.02.III notes that broken lines include “[s]tructure that is not part of the claimed design, but is considered necessary to show the environment in which the design is associated” and that structure “may be represented in the drawing by broken lines.” *Id.* Such unclaimed subject matter represented by **broken lines forms no part of the claimed design**.

I am also informed that “in analyzing infringement, the fact finder must **compare the claimed portion** of the design—i.e., whatever is shown in solid lines in the patent drawings—to the

corresponding portion of the accused design.” (emphasis added) Burstein, The “Article of Manufacture” in 1887, supra note 12, at 11 (first citing *Hutzler Mfg. Co. v. Bradshaw Int’l, Inc.*, No. 1:11-cv-07211, 2012 WL 3031150, at *9–10 (S.D.N.Y. July 24, 2012); and then citing *Egyptian Goddess*, 543 F.3d at 672).

I understand that a design patent infringement analysis is a **two-step process**. The first step, after a design patent’s claim is construed is to consider whether the Claimed Design and Infringing products are “sufficiently distinct” also known as “plainly dissimilar.” *Ethicon*, 796 F.3d at 1335 (citing *Egyptian Goddess*, 543 F. 3d at 678). If the Claimed Design and the Infringing products are found to be plainly dissimilar, there is no patent infringement. *Id.*

I also understand that while the claimed design of a design patent is better represented by an illustration, it is helpful to the finder of fact to be provided with **guidance on the overall impression** of the claimed design on the ordinary observer. *Contessa Food Prods., Inc. v. Conagra, Inc.*, 282 F.3d 1370, 1376 (Fed. Cir. 2002).

But “if the claimed and accused designs are not plainly dissimilar,” I understand that the second step in an infringement analysis involves a **three-way comparison** to compare “the patented and accused designs in the context of similar designs found in the prior art.” *Egyptian Goddess*, 543 F.3d at 674. “[I]f the accused design has copied a particular feature of the claimed design that departs conspicuously from the prior art, the accused design is naturally more likely to be regarded as deceptively similar to the claimed design, and thus infringing.” *Id.* at 677. Further, I understand that the three-way comparison does not involve discussing a **later-granted patents, such as the D808,856, D808,857, and D891,297 (“Gyroor Patents”)**. There is no place for these later-granted patents under *Egyptian Goddess*, and I therefore do not opine on the merits of these patents. However, I reserve the right to address these when appropriate.

I am informed that the *Egyptian Goddess* case makes clear, the ultimate burden of proving infringement is on the patent owner. Accordingly, the **failure of the accused infringer to bring forward prior art** is not an admission of infringement, but rather only a concession that knowledge of the prior art would not make infringement less likely. See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678-79 (Fed. Cir. 2008) (en banc).

As I understand, the fact finder must apply the ordinary observer test by **comparing similarities in overall designs**, not similarities of ornamental features in isolation.” and “**not minor or trivial differences** that necessarily exist between any two designs that are not exact copies of one another.” (Emphasis added) *Ethicon*, 796 F.3d at 1335 (citing *Richardson v. Stanley Works, Inc.*, 597 F.3d 1288, 1295 (Fed. Cir. 2010), *Int’l Seaway Trading Co. v. Walgreens Corp.*, 589 F.3d 1233, 1243 (Fed. Cir. 2009)).

As I understand, “[t]he measure of infringement of a design patent is deception of the **ordinary observer**, when such person gives the design the attention usually given by a purchaser of the item bearing the design[.]” *Goodyear Tire*, 162 F.3d at 1117. Accordingly, I understand that the

hypothetical ordinary observer must be identified before applying the ordinary observer test by focusing on the “actual product that is presented for purchase, and the ordinary purchaser of that product.” *Id.*

Further, I understand that some courts have held that the ordinary observer is one who is “not an expert in the claimed designs”, but rather “one of **ordinary acuteness** who is a principal purchaser [”] of the product. *Ethicon*, 796 F.3d at 1337 (internal quotations and citation omitted).

As was explained to me, to be afforded patent protection, “a design must present an aesthetically pleasing appearance that is **not dictated by function alone.**” *Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 148 (1989). “[W]hether a design is primarily functional or primarily ornamental requires viewing the claimed design ‘in its entirety.’” *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1329 (Fed. Cir. 2015). I further understand that to “entirely eliminate a structural element from the claimed ornamental design, even though that element also served a functional purpose” is not permitted. *Sport Dimension*, 820 F.3d at 1321.

To determine the scope of the claim, I understand that the court considers the distinction between features of the claimed design that are “ornamental” and those that are “purely functional.” *Ethicon Endo-Surgery*, 796 F.3d at 1333. I understand that a design element is “purely functional” where its basic design is “dictated” by its functional purpose or is otherwise “essential to the use of the article.” *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1320 (Fed. Cir. 2016). I also understand that **several factors suggest that a feature is functional**, including whether (1) the protected design represents the best design, (2) alternative designs would adversely affect the utility of the specified article, (3) there are any concomitant utility patents, (4) the advertising touts particular features of the design as having specific utility, and (5) whether the feature is clearly dictated by function. *PHG Technologies, LLC v. St. John Cos.*, 469 F.3d 1361, 1366 (Fed. Cir. 2002).

It is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue. *Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000) See also MPEP §2125 “When the reference does not disclose that the drawings are to scale and is silent as to dimensions, **arguments based on measurement of the drawing features are of little value.**”.

IV. ANALYSIS OF RAKE DECLARATIONS

Table 1 is provided below to facilitate the discussion of the infringing product types:

Table 1: Infringing products by Defendants Gyroor		
Gyroor product type	Infringing product	Defendants

“Gyroor Product A”:		Gyroor (Gyroor.com; gyroorboard.com); Gaodeshang-US; Gyroschoes; HGSM; Urbanmax; Jiangyou-US; Gyroor-US
“Gyroor Product B”:		Gyroor (Gyroor.com; gyroorboard.com); Gaodeshang-US
“Gyroor Product C”:		Gyroor US; Jiangyou-US; (Gyroor.com; gyroorboard.com);
“Gyroor Product D”:		Fengchi-US; (Gyroor.com; gyroorboard.com);

In addition to the discussions below, the Rake Declarations discuss the Gyroor Patents when comparing each of the Infringing Products to the Patents-in-Suit. Based on Section III above, *Egyptian Goddess* does not permit such comparison. Therefore, instead of continuing to engage such erroneous analyses like the Rake Declarations, I am asked not to perform such review until necessary.

A. The Reliability And Credibility of Rake Declarations Is Undermined By His Errors, Despite His Experience

Mr. Rake has a long history in giving testimonies in intellectual property. It is therefore surprising that the Rake Declaration included so many **improper and inaccurate analyses**. It is equally surprising that there are so many careless, critical errors and mistakes in his declaration, which together bear heavily on his credibility as an expert witness.

For example, in *all four* declarations he proposes that he is "qualified to give an opinion about what would be understood by one skilled in the art of **ceiling fans** like those at issue here" (Rake1-5 § 23) (emphasis added), and that his relevant experience includes "products that **contain metal components**" (Rake1-5 § 8).

Signs of accidental pasting from other cases are also evident in Rake1 § 52, "I determined that the overall Gestalt of the **Infringing Product fan** is more similar to the design of the '857 Patent than that of the '723 Patent" (emphasis added). These types of mistakes make it unclear as to whether this represents his opinion or not.

When addressing functionality for the very first time in the declaration, Mr. Rake refers back to an explanation of functionality that is not in the preceding declaration at all, "The overall shape of the '723 Patent claim is, **as I explained earlier**, largely based on functionality" (Rake1 § 58, Rake2-5 § 70).

In his review of the '857 Patent, not only does he **omit the top and front views he refers to** but also shows a **figure from the wrong patent**, from the '723 Patent instead of the '857 Patent.

Mr. Rake also compares the **wrong patent figures** against in the '906 Patent in many parts of his 2nd, 3rd, 4th and 5th declarations, mistaking the '195 Patent for the '723 Patent (Rake2-5 § 63), mistaking the '256 Patent for the '723 Patent (Rake2-5 § 67), confusing the '723 Patent for the '256 Patent (Rake2-5 § 74) and again in Rake2-5 § 101, again in Rake2-5 § 128, and once again in Rake2-5 § 155. Not only do these mistakes show a lack of visual acuity in Mr. Rake's analysis of the designs, but also leave his opinions lacking the relevant evidence.

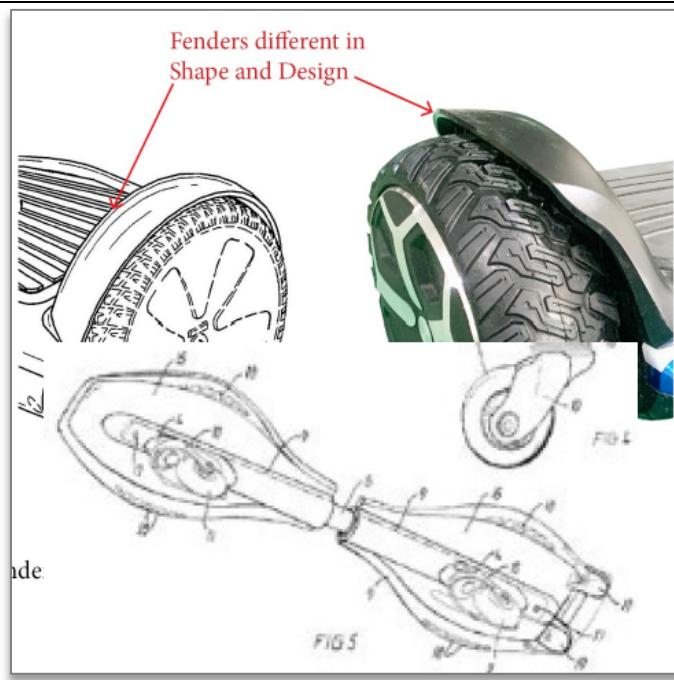
These errors may show the lack of attention Mr. Rake paid to the individual designs of the Patents-In-Suit, and despite the patent examiner considering them as four distinct designs Mr. Rake **did not identify any differences between the Patents-In-Suit**, nor did he handle them differently in any way. Moreover, his copy-and-paste of sections from other cases show his lack of attention paid to this case, and therefore his declarations may be given little or no weight in supporting Gyroor Defendants' noninfringement position.

In introducing the '856 and '857 Patents in the 2nd, 3rd, 4th and 5th Declarations, Mr. Rake states, in his own words, "Broken lines set forth the bounds of the claimed design and form no part thereof", giving the impression that some of the figures include broken lines. However, there are no broken lines in the '856 and '857 Patents whatsoever, which Mr. Rake either **failed to notice** or he mistakenly wrote the wrong statement.

B. Rake Declarations Include Contradictory Positions That Further Significantly Undermine His Credibility

Mr. Rake states that the size and shape of the fenders is an “important design feature that has a significant effect on the overall visual impression of the ordinary observer”. (Rake1 § 63) Mr. Rake illustrates this by showing a figure from the U.S. Patent 8,469,376 next to a partial figures of the ‘256 Patent the Infringing Product and states that “the differences are significant and glaring”. While there may be some difference between the two designs, the prior art he included is devoid of a fender, and **only demonstrates how similar** the two conflicting designs are in light of the prior art, quite the opposite of his opinion.

Table 2: Mr. Rake’s table on fenders compares the conflicting designs to a prior art that has no fender



In the conclusions of the 2nd, 3rd, 4th and 5th Rake Declarations, Mr. Rake incorrectly states that the ‘857 Patent “was not part of [his] non-infringement analysis”. However, this is an **untrue statement** as he repeatedly included it in his comparison to the Patents-In-Issue in his first non-infringement analysis. (Rake1 §§ 51-76).

C. Rake Declarations Are Based on Incorrect Understanding and Application of *Egyptian Goddess*

1. The Rake Declarations rely upon an incorrect understanding of the ordinary observer test
Mr. Rake improperly uses *deception of the ordinary observer to induce purchase* as the measurement of whether the designs are substantially the same, “If the resemblance **deceives**

the observer, inducing him or her to purchase one supposing it to be the other, the designs are substantially the same" (emphasis added) (Rake1 § 38, Rake2-5 § 39). As explained in Section III above, the true measurement of infringement using the ordinary observer test is not based on whether the ordinary observer is deceived into purchase.

2. The Rake Declaration omits defining the level of attention of the Ordinary Observer

In an infringement analysis we must define the ordinary observer in order to establish the **level of attention** they may apply to aesthetics, form and styling details, a crucial step which Mr. Rake does not do. Mr. Rake does, however, assert that the purchaser will "do their homework" when buying articles such as hoverboards, and research different brands online and read reviews (Rake Decl. §40). I agree. A consumer informing themself about the products for the first time would be focused primarily on user reviews, brands and costs¹, and would apply very little attention to the intricacies of the finer styling details.

Based on the context of purchase, and the untrained eye of the purchaser, it is my opinion that the ordinary observer would possess "ordinary acuteness" and would apply a *relatively low level of attention* to the aesthetics of the product. Thus, small visual details (e.g., such as the air vent pattern on the underside or the specific shape of the shallow grooves on the foot pads) would not affect their overall impression of the object as a whole.

I also note that Mr. Rake does not rebut the description I provided in my Infringement Analysis of the level of attention the ordinary observer would have.

3. The Rake Declarations are missing critical steps of infringement analysis

Mr. Rake **does not construe the claims** of the patent in light of the prior art, nor does he provide analysis on whether they are 'plainly dissimilar', as is required in infringement analysis.

As outlined above in section III, infringement analysis requires the claimed design of the Patents-In-Issue to first be construed. Mr. Rake only provided textual information from the face of the patents (Rake1 § 36) but did not provide any mention or analysis on their filing history, their prior art or about **the scope of each patent** in light of the prior art, which is not identical. Without construing the claims of the patent in light of the prior art, the analysis and resulting conclusions that follow may become greatly undermined.

I am informed that after construing the claims, infringement analysis follows two steps: The first step is a comparison of the Infringing Product to the Patents-In-Issue to evaluate whether they are 'plainly dissimilar'. If they are not plainly dissimilar the analysis moves on to the second

¹ In my prior declaration I stated that "an ordinary observer is the typical purchaser of hoverboards." Dkts. 385, pp. 18-19; 388, p. 7. "[T]hat person would be a consumer user or the parent of a user, each having little or no experience purchasing hoverboards." Dkts. 385, p. 19; 388, p. 8. "The ordinary observer would encounter hoverboard products through online stores, television and social media, and then purchase them using online stores (e.g., Amazon.com) without the ability to view or discern minor differences or from 'brick and mortar' stores (e.g., Best Buy or Walmart). Id. Therefore, such an ordinary observer would view various hoverboard products, including those embodying prior art, while browsing through online images of hoverboards.

step of analysis comparing the conflicting designs to the prior art through the eyes of an ordinary observer. Mr. Rake **did not provide analysis on the first step** of infringement analysis but conducted the second step and thus infers that the two designs are not plainly dissimilar.

In Rake1, Mr. Rake does not compare the conflicting designs to the prior art. The second step of infringement analysis involves establishing whether the Infringing Product is ‘substantially the same’ as the claimed design of the Patents-In-Issue through the eyes of an ordinary observer in light of the prior art. For this purpose, the closest prior art is to be selected by the defendant as a yardstick against which to evaluate *whether the Accused Design is closer to the Patents than the prior art*. In Rake1, Mr. Rake did not offer an opinion on what he considers the closest prior art **nor did he use prior art in his analysis** other than to refer to a specific feature from one particular prior art (Rake1 § 63). Without comparing the conflicting designs to the prior art, as the infringement process requires, his opinions or conclusions about infringement risk being considered meaningless.

Furthermore, his declaration also informs us that he **did not analyze a physical sample** of the Infringing Product at all. While not a mandatory part of analysis, his observations may have been very different had he evaluated the Infringing Products in person instead of relying upon photographs with distorted perspectives.

4. The Rake Declarations rely upon unrelated patents without analysis or evidence

In the Conclusion Section of the 2nd, 3rd, 4th and 5th Declarations, Mr. Rake introduces for the first time in those documents, the Gyroor Patents. **Without analysis or evidence**, he states simply that “Although this patent was not a part of my non-infringement analysis, I do believe that [the Infringing products] would be seen as substantially similar to the [newly introduced patent] in the eyes of an ordinary observer” (Rake 2-4 §§ 187-189). First, the Rake Declarations 2-4 do not provide any claim construction of these patents to define their scope. Mr. Rake also does not analyze or even reference their prior art. Furthermore, Mr. Rake **improperly uses the viewpoint of the ordinary observer** here instead of that of the Person of Ordinary Skill in the Art (“POSITA”) typical for analyzing whether a product is the commercial embodiment of a patent.

5. Mr. Rake’s evidence improperly relies upon dimensions

Mr. Rake incorrectly **infers dimensions** from the design patents, but figures in design patents do not represent fixed dimensions and can represent objects of any scale (See also MPEP §2125). In a paragraph on non-infringement analysis, Mr. Rake describes hoverboards in general, and provides dimensions of wheel diameters and the distance between them (Rake1 § 47, Rake 2-4 § 46). He later **improperly relies upon these dimensions** as evidence that the overall shape of the Patents-In-Issue is based on functionality; “The dimensions correspond to the dimensions of a human foot, the distance between footpads corresponds to approximate ‘shoulder width’ dimensions of the user” (Rake1 §§ 58, 64, 70 and 76, Rake2-5 §§ 70, 76, 82, 88, 97, 103, 109, 115, 124, 130, 136, 142, 151, 157, 163, 169).

Further, his opinion that the length of hoverboards is dictated by shoulder width is not only **contradicts many prior art examples** that are of varying lengths, but also ignores Mr. Rake's own work (Rake1-5 § 13). Skateboards too vary greatly in length, and even have short versions (for example 'penny boards') and long versions (for example 'longboards') all of which support two adult feet spaced apart in a similar way to hoverboards.

6. Mr. Rake considers ornamental elements of the claimed designs as functional without analysis or evidence

Mr. Rake considers the overall hourglass shape of each of the claimed designs of the Patents-In-Issue "largely based on functionality" (Rake1 § 58, 64, 70, and 76), but he **provides no analysis or evidence** to explain his opinion. As stated in my prior testimony, I disagree that any of the ornamental elements of the claimed designs should be considered to be driven by function (Hatch Decl. section III, G). In applying the correct standards, it is my opinion that none of the ornamental designs claimed in the Patents-In-Issue are dictated by function, or otherwise purely functional.

I understand that to "entirely eliminate a structural element from the claimed ornamental design, even though that element also served a functional purpose" is not permitted.

Accordingly, aspects of a design at claim construction should not be lightly extracted when the ultimate inquiry is focused on the overall design. I further understand that several factors suggest that a feature is primarily functional, including whether:

- (1) the protected design represents the best design,
- (2) alternative designs would adversely affect the utility of the specified article,
- (3) there are any concomitant utility patents,
- (4) the advertising touts particular features of the design as having specific utility, and
- (5) whether the feature is clearly dictated by function.

Mr. Rake did not conduct this or **any functionality analysis**, nor provide evidence that might support it. Further, the Expert Reports of Jim Gandy (Dkts. 413-3, 414-3, 419-3, 420-3, and 421-3) does include consideration of the overall hourglass shape in the analysis and Mr. Gandy does not consider its shape driven by function.

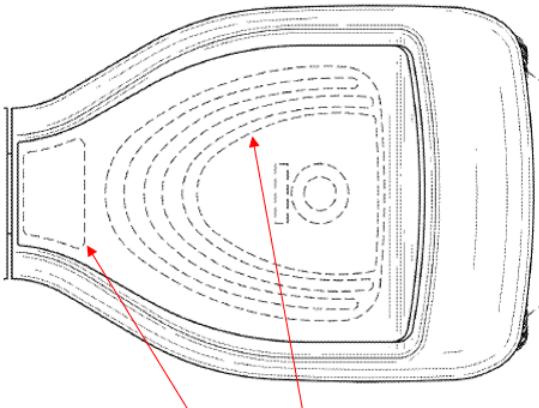
Furthermore, Mr. Rake also opines the shape of the center portion is driven by function, reasoning that "the narrowing at the center facilitates the needed twisting motion without interference with the user or the ground" (Rake1 §§ 58, 64, 70, and 76) and provides as evidence the prior art U.S. Patent 8,469,376. First, **the center portion would not physically interfere** with the ground or with the feet even if they were as wide as the foot pads. Second, referring to prior art with a portion that is similarly proportioned does not evidence functionality, in fact other prior art cited on the patent also include center portions that are much wider, such as the U.S. Patent 7,424,927.

7. The Rake Declaration improperly relies upon comparing unclaimed areas

Mr. Rake improperly **compares unclaimed areas** to corresponding areas in the Infringing Product and concludes an ordinary observer would "recognize that the [claimed design] has prominent design element in the middle and the Accused Product is clean, without

any such design element." (Rake1 §§ 65 and 71). I am informed that if an Infringing Product has a different ornamental pattern to that shown as unclaimed in the Patents-in-Issue, it does not serve to evidence non-infringement.

Table 3: Mr. Rake Improperly Relies Upon Unclaimed Areas For His Evidence

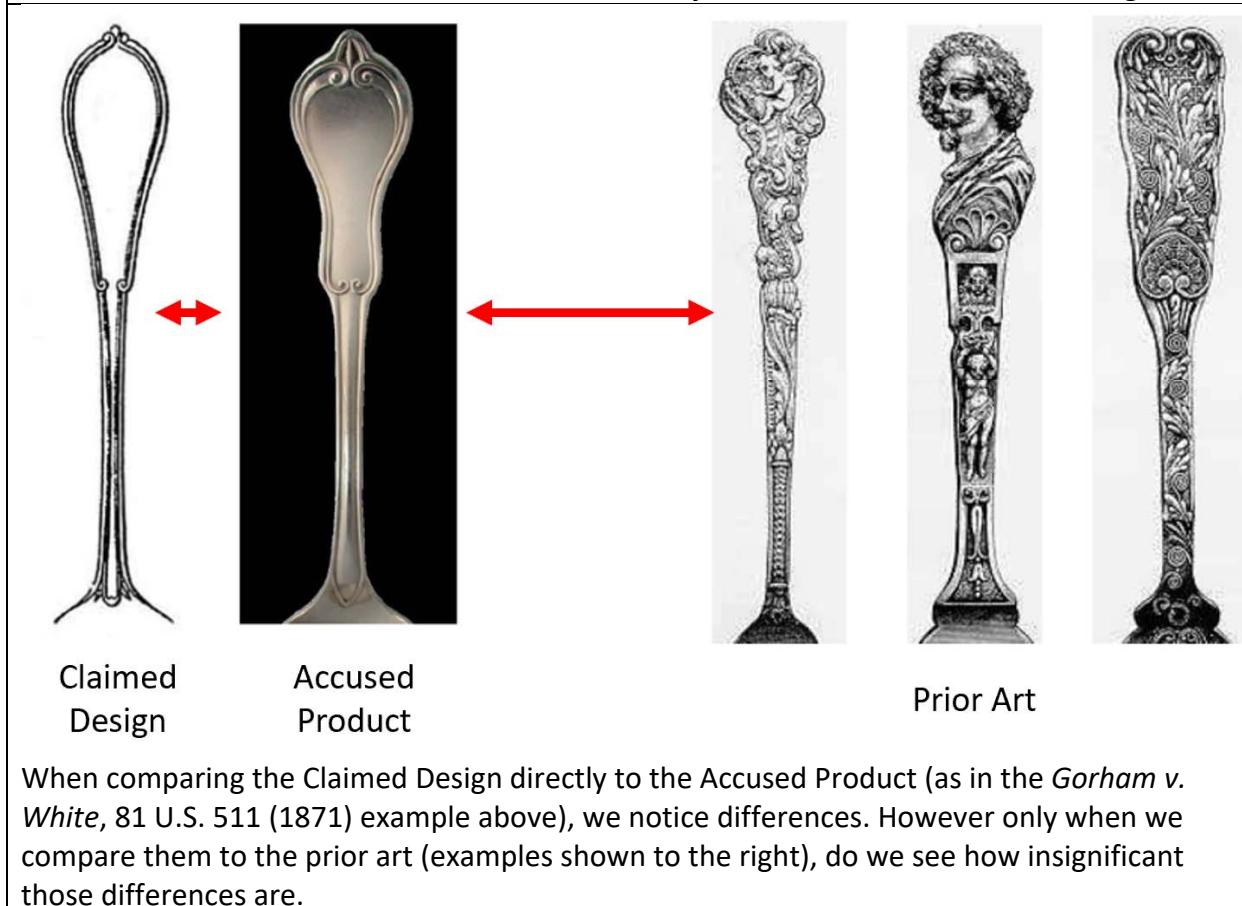
 Broken lines mark unclaimed pattern.	 Having different patterns (or no pattern) does not negate infringement.
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Mr. Rake repeats this flawed analysis when **annotating an unclaimed feature** on the top of the foot plates, pointing out they are "different in shape, design and density". (Rake1 §§ 65).

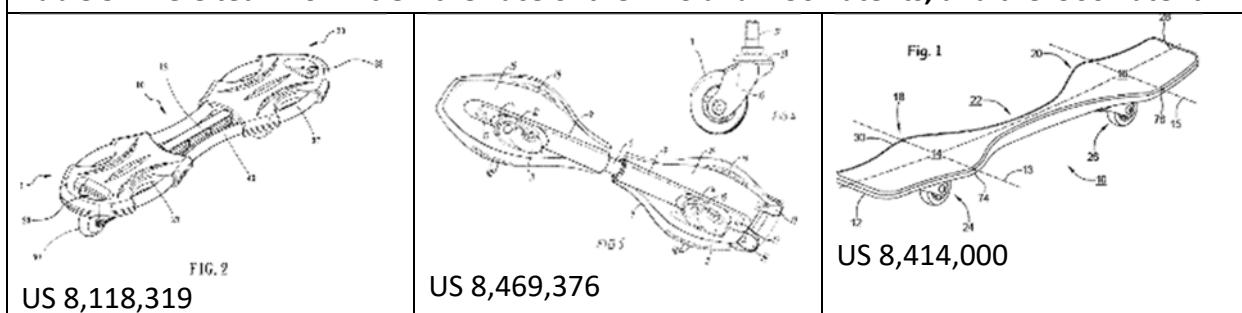
A similar improper analysis is repeated on the underside of the hoverboard, when referring to the **unclaimed vent pattern** of the '112 Patent as not being "prominent vent holes" (Rake1 § 74).

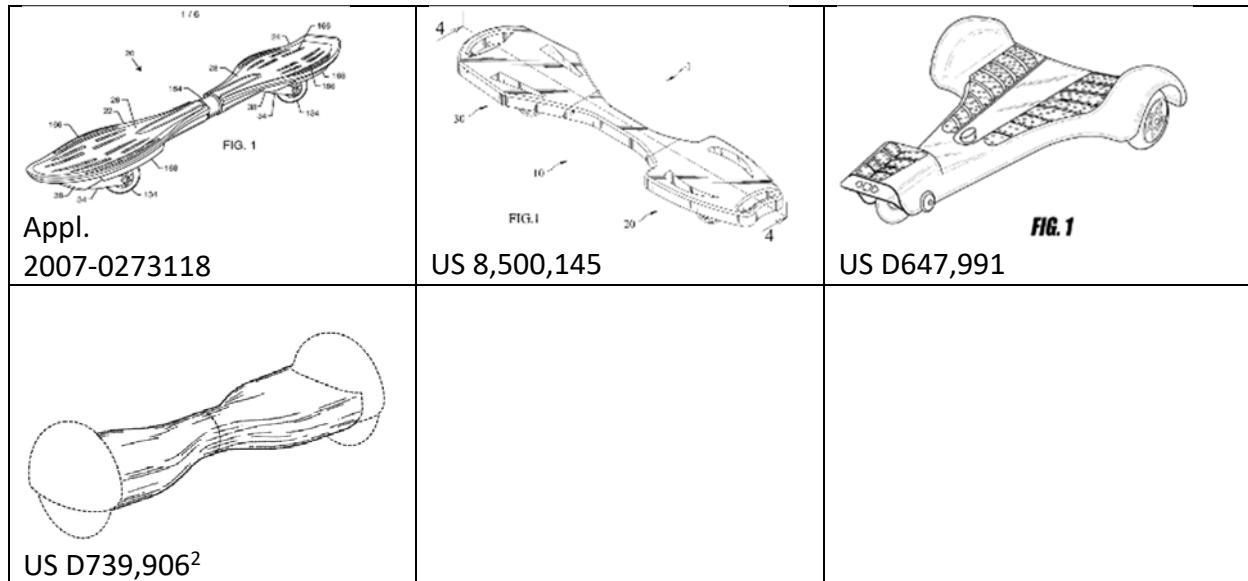
8. The Rake Declaration fails to use the correct viewpoint through which to base opinions.

The Rake Declarations include many paragraphs that explain Gestalt Theory and 'figure-ground theory' to explain how an ordinary observer would perceive the designs, but they completely disregard the effect of prior art to the ordinary observer's perception of visual form. Mr. Rake states he "relied on [Gestalt principles] in this analysis" and "using well established Gestalt principles, I then compared the differences/similarities between the '723 Patent and Accused Product". In doing so, Mr. Rake **did not apply the correct viewpoint** from which to understand how the ordinary observer would see the designs. How certain features are represented in the prior art greatly affects the impression of a design to the hypothetical ordinary observer (see example below) Mr. Rake neither analyzed the prior art nor did he compare the designs to it in his analysis, which may seriously undermine his opinions.

Table 4: The Prior Art Informs Us How The Ordinary Observer Would View The Designs.

For example, Mr. Rake states the *exact size and shape* of the fenders is an “important design feature that has a significant effect on the overall visual impression of the ordinary observer”. (Rake1 § 57). However, the use of open fenders on an hour-glass body is completely unique among the prior art of the ‘723 and ‘256 Patents (shown below), and therefore an ordinary observer **would not look to small details** to differentiate between designs.

Table 5: The Cited Prior Art On the Face of the ‘723 and ‘256 Patents, and the ‘906 Patent



In contrast, for the purposes of my analysis I considered prior art to define the scope of the hoverboard market at the time the Claimed Designs were filed. In so doing, I was able to better discern the similarities and differences (or lack thereof) between the Patents-In-Suit and the Infringing products in the eyes of the ordinary observer.

9. Mr. Rake improperly relies upon whether individual differences are ‘obvious’ instead of comparing the overall impression

In Rake1, Mr. Rake’s analysis concludes with his finding the Infringing Product’s overall appearance to be *substantially different* from both the (unspecified) prior art and the Patents-In-Suit (Rake1 §§ 46 and 78, Rake2-5 §§ 45, 90, 117, and 144). First, **differences** between the prior art and patented designs do not evidence non-infringement, in fact differences are wholly expected³. The correct analysis is whether the Infringing Product is *closer* to the Patents-In-Suit than they are to the Prior Art (see also table 4 above).

Further, in Rake1, Mr. Rake **does not compare the conflicting designs to the prior art** nor does he provide an opinion on what the closest prior art may be, and therefore his conclusory statements are baseless and lacks evidence.

As a further example, in Mr. Rake’s summary of opinions he explains “In my opinion, the **visual differences** between the claimed designs of the Patents-in-Suit and the design of the Infringing Product **would be obvious** to the ordinary observer.” (emphasis added), (Rake1 §§ 44 and 78-

² I am also informed that while the ‘906 Patent was not cited on the face of ‘723 and ‘256 Patents, it is technically prior art as its filing date precedes the filing.

³ I am informed that “One who seeks to pirate an invention, like one who seeks to pirate a copy-righted book or play, may be expected to introduce minor variations to conceal and shelter the piracy. Outright and forthright duplication is a dull and very rare type of infringement.” *Schnadig Corp v. Gaines Mfg. Co.*, 494 F.2d 383, 391-92 (6th Cir. 1974.)

81, and Rake 2-4 §§ 43 and 171-186). However, whether *differences* are *obvious* is not relevant to the ordinary observer test.

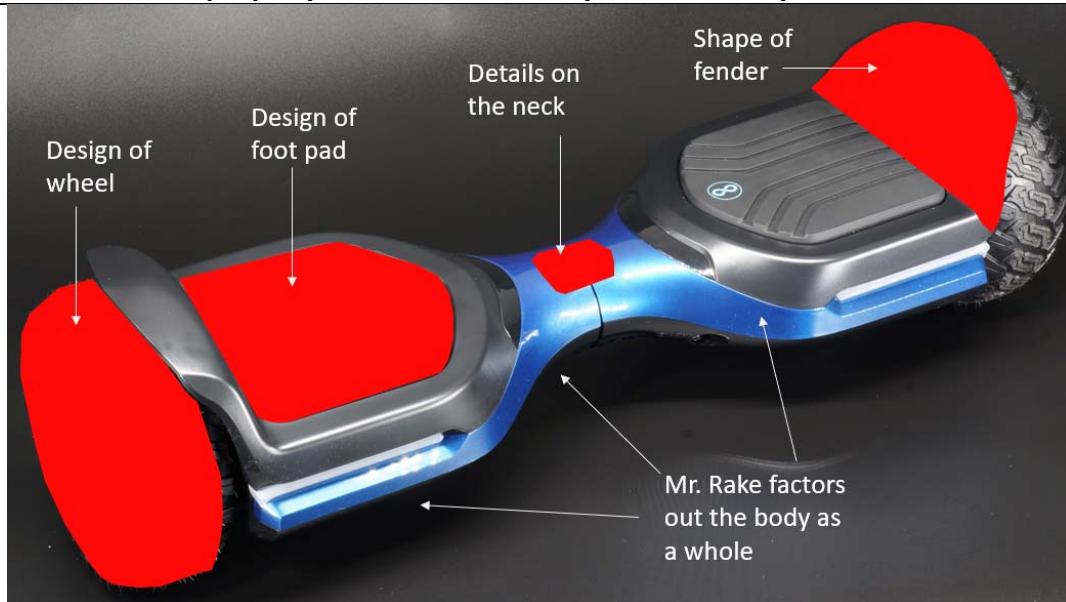
10. Mr. Rake improperly relies upon small, isolated differences in specific views and not the overall impression

The Rake Declaration improperly relies upon insignificant **isolated features** in specific views to analyze differences between the Infringing products and the Patents-In-Issue, and not the overall impression of the design as a whole⁴. Specifically, he completely ignores the overall shape of the hoverboard (improperly removing it asserting it to be functional) and discusses only differences between specific features such as the air vents and grooves when viewed from the underside, the lights when viewed from the front, and the grooves in the foot pads when viewed from the top.

Mr. Rake's analysis **improperly prioritizes selected views** over others because "the user most commonly sees a hoverboard from a position standing over the board" (Rake1 § 41, Rake2-5 § 39). This may skew the analysis unfairly toward specific features. In infringement analysis the hypothetical ordinary observer would be familiar with all sides of the product based on the combination of all viewpoints.

For example, in discussing hoverboards in general, Mr. Rake identifies specific areas as "the most prominent features" and provides a **list of four isolated features** (Rake1 § 41 and Rake2-5 § 40). First, he ignores the overall shape of the hoverboard, or how the main body-parts form together, aspects that create the overall impression of the product as a whole. Second, Mr. Rake bases this narrow focus on his current view of **current hoverboards as a whole** and not based on the Patents-In-Issue or how the ordinary observer would view it in light of the prior art of the time. Viewing the prior art shown in table 6 below, it would be quite incorrect to only compare their visual impression based on only "the design of the two foot pads, the design of the wheels, visual details on the neck between the footpads, and the shape of the fenders that cover the wheels"

⁴ I am informed that in evaluating infringement, courts determine whether "the deception that arises is a result of the similarities in the overall design, not of similarities in ornamental features in isolation." *Amini Innovation Corp. v. Anthony Cal., Inc.*, 439 F.3d 1365, 1372 (Fed. Cir. 2006) at 1371

Table 6: Mr. Rake improperly factors out the body from his analysis

Mr. Rake describes these four selected areas as the “most prominent features impacting the overall visual impression to the ordinary observer”, factoring out the shape of the body itself and the impression of the object as a whole. Also note that three of these four areas are *unclaimed* in one or more of the Patents-In-Suit and therefore should not be part of a comparative analysis.

Other than simply listing the above four small differentiators, Mr. Rake does not provide evidence as to why these would be the most prominent areas of the overall impression as viewed by an ordinary observer, and **does not present evidence** on how the prior art may support this opinion. For example, in analyzing differences between the Infringing Product and the Patents-In-Suit (without the prior art) Mr. Rake focusses on a single line in one view of the drawing as a prominent deviation (Rake1 § 53) or a pattern of vent holes on the underside (Rake1 § 55). While these are differences between the designs, they are insignificant to the overall impression created by the design as a whole.

11. The Rake Declaration omits critical views and evidence

In several places in the Rake Declaration, Mr. Rake refers to appearances from specific views but illustrates this using a different view, completely **omitting the evidence which he refers to**. For example, in Rake1 §§ 53, 59, 65 and 71 "From the top and front views, the differences in shape and design of the footpads is clear" and in Rake1 §§ 54, 60, 66 and 72, "The front view we can see dramatic and obvious difference in the size, shape, and character of the lights". In addition to adding confusion this may only provide unhelpful opinion without evidence.

Additionally, Mr. Rake states, "I consider the Top and Front views to be the most important in my analysis" and omits to provide these views. (Rake1 §§ 55, 61, 67 and 73). While it is not

evidence of malintent to **omit selected views from the declaration**, it is nevertheless unhelpful to omit the specific views he refers to and instead only show other figures.

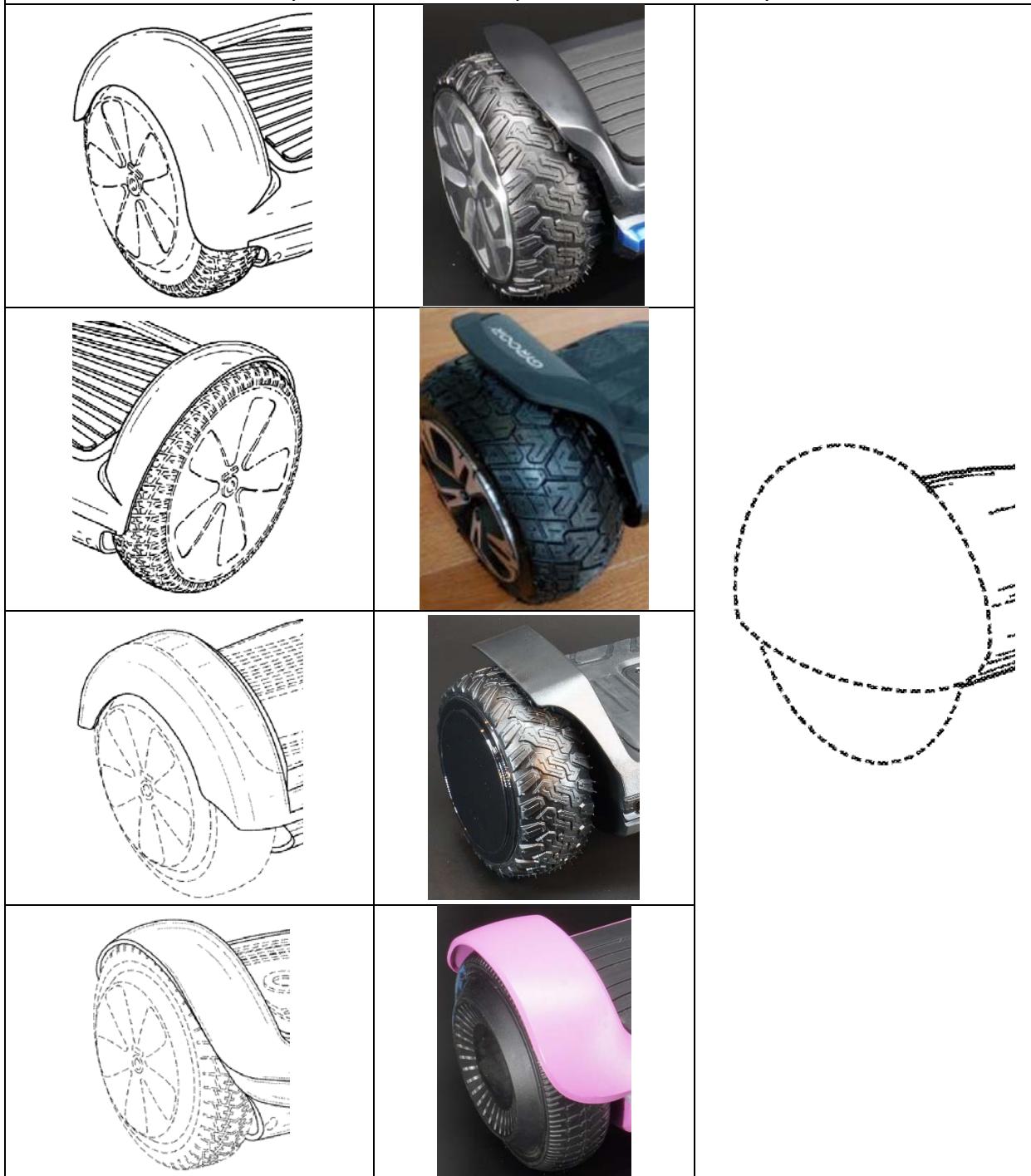
Mr. Rake also purposefully **omits evidence that contradicts his opinions**. For example, in each of Mr. Rake's charts he presents a figure from the '723 Patent to a similar angle of the Accused Patent and a similar angle of the '857 Patent. However, when opining on the fender comparison, he omits the corresponding image of the '857 Patent, (Rake1 §§ 57, 63, 69 and 75) which as we can see below in Table 7, differs greatly from the design of the Infringing Product and contradicts his opinion.

In analyzing the hourglass shape of the '906 Patent using only the top views as evidence, Mr. Rake remarks only of its similarity to the design of the '723 and '256 Patents, and **omits providing an opinion or evidence about the design of the '195 or '112 Patents**, or how any of these may compare in this regard to the Infringing products (Rake2-5 § 55). Again, selecting only specific views and omitting important evidence is clearly unhelpful for the finder of fact.

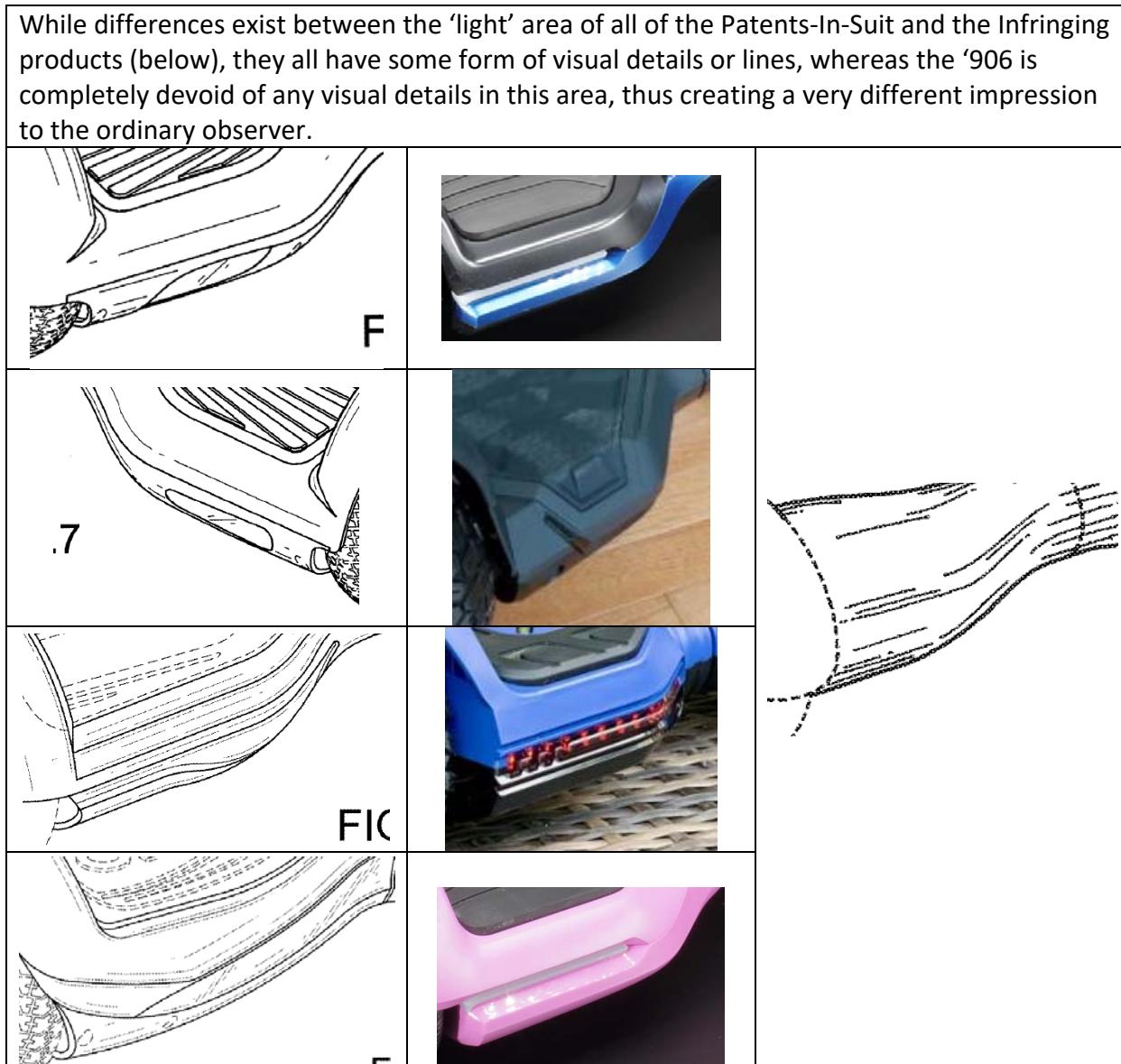
The 2nd, 3rd, 4th and 5th Rake Declarations provide a three-way comparison between the Accused Product, the Patents-In-Suit and the '906 Patent. The corresponding **view of the '906 is ominously omitted when comparing the "lights" area and the fenders**. It is unclear why Mr. Rake omitted these views, but we can see they would clearly contradict his opinions about the Patents-In-Issue being more similar to the '906 than to the Accused Designs. If we compare these specific elements to the '906 (see Table 7), it is clear how the '906 stands as the 'odd man out'.

Table 7: Mr. Rake Omitted Critical Views of the '906 That Contradict His Opinion

While differences exist between the fenders all of the Patents-In-Suit and the Infringing products, they all have fenders, and all have fenders that visually reveal most of the wheel. The '906 in contrast is not a fender but a 'fender skirt'⁵ which hides most of the wheel and therefore creates a starkly different overall impression to the ordinary observer.



⁵ 'Fender skirt' is a term used by the automobile industry when the wheel is almost entirely hidden, as seen in 1969 Buick Electra, the 1986 Citroen CX



For brevity I have only shown one view of each, but my analysis was conducted regarding the designs in whole. Note also, the above closeups were only shown to illustrate the deliberate omission of critical evidence in Mr. Rake's Declarations.

V. ANALYSIS OF MR. RAKE'S REBUTTAL OF HATCH INFRINGEMENT REPORT

In his short rebuttal of my Infringement Analysis (Rake 2-4 §§ 51-61), Mr. Rake **misstates my opinion** by truncating my sentences, while omitting critical evidence that would contradict the opinion he makes. Also, in Rake2-5 § 56 Mr. Rake includes a very similar truncated quotation that misrepresents my testimony. For example, he quotes me as describing the Infringing Product as having “an integrated ‘hourglass’ body with a relatively flat surface across the top of the main body” and remarks that I failed to report “that the ‘906 also has an integrated hourglass body with relatively flat surface across the top.” (Rake 2-4 § 54). However, my description of the Patents-In-Issue **never once reduced the claimed design to these two**

elements, and always included mention of additional visual features, the unique combination of which sets it apart from the prior art. Further, my evidence was not based on verbal descriptions alone, but the wording accompanied the images to help illustrate the most salient aspects of the visual impression as seen through the eyes of the ordinary observer.

Mr. Rake is also incorrect in his assertions that I “fail[] to examine relevant prior art”, provide “overly broad” conclusions “not based upon sufficient evidence” (Rake2-5 § 51). Unlike the Rake Declarations, my Infringement Analysis did provide all four patents’ cited prior that I had analyzed, including the ‘906 Patent. I also applied the correct legal procedure of analysis in support of the position of the plaintiff. Further, I understand it is the **burden of the Defendants to provide evidence** of non-infringement and to provide the corresponding comparative analysis.

In a similar fashion, Mr. Rake declares that I “apparently only considered references cited on the face of these patents” and “ignores [the ‘906] when analyzing the’723 and’256” (Rake 2-4 §§ 52-53). Again, representing the cited prior art on the face of the patent to establish the claim scope is the correct procedure for the plaintiff, and it is the **burden of the Defendant to present any prior art that they consider to be closer** than those referenced on the face of the patent, if any. *Egyptian Goddess* specifically provides that “if the accused infringer elects to rely on the comparison prior art as part of its defense against the claim of infringement, the burden of production of that prior art is on the accused infringer.” *Egyptian*, 543 F3d at 678.

Mr. Rake also asserts that I do not provide sufficient analysis of functionality (Rake 2-4 § 58). However, again, it is the burden of the Defendants to provide evidence of ornamental elements being driven primarily by function, if they consider it exists. To this end, Mr. Rake’s opinion that the general body shape is driven by **functionality is not evidenced**, nor does he conduct the correct analysis (as outlined above).

Mr. Rake states that “the overall shape, proportions, and configuration of the ’906 patent are strikingly similar to the ’723 and ’256 patents” as “each of these designs plainly show an integrated hourglass body with a relatively flat surface across the top of the main body”.(Rake2-5 § 53). I disagree. While the ’723 and ’256 Patents do include an hourglass body with a relatively flat surface across the top of the main body, the open-sided fenders and the ‘busyness’ of the body styling are inextricable aspects of the impression of the design as a whole and distinct from the ’906.

Mr. Rake also incorrectly asserts that I ignored the design of the footpads and the overall design of the fenders (Rake2-5 § 53). First, I did analyze both the fenders and the footpads of not only the Patents-In-Suit but also in the Infringing products and referred to them in thirteen separate paragraphs in my declaration. Second, the exact design of the footpads, specifically the groove pattern that Mr. Rake considers would “draw the eye” is relatively insignificant to the overall impression compared to other more salient visual features, which were the foci of my analysis and supporting descriptions. Third, the *exact shape* of the fenders (or “arched covers”) is also

relatively insignificant to the overall impression when construing the Patents-In-Suit in light of the prior art (note also that Defendant's purported "closest prior art" does not include fenders).

Further, Mr. Rake failed to respond to any of the other opinions or evidence presented in the Hatch Infringement Declaration. While this is not evidence that he agrees with all my opinions, I understand his silence on the matter thus forfeits providing an opposing opinion.

VI. A Three-Way Comparison of the Patents-in-Suit, the infringing products, and the 'D906 patent

In view of the '906 Patent, which is no more relevant than the prior art already known at the time, I have conducted another comparison between the Patents-in-Suit, the Infringing Products, and the '906 Patent in Exhibit 1. My conclusions are that in the eyes of the ordinary observer, the claimed design of the Patents-in-Suit is substantially the same as the overall visual impression presented by the Infringing Products as discussed in Exhibit 1.

VII. CONCLUSION

Based upon the legal principles explained to me and my examination of the Rake Declarations, Defendant's Infringing products, the Patents-In-Suit and their file histories, and the prior art, it is my opinion that:

- The reliability and credibility of the Rake Declarations is undermined by many errors.
- The opinions in the Rake Declarations include contradictory positions that may further significantly undermine his credibility.
- The analysis in the Rake Declarations rely upon an incorrect understanding of the ordinary observer test and also omit defining the level of attention of the ordinary observer.
- The Rake Declarations are missing critical steps of infringement analysis including failing to expressly construe the scope of the Patents-In-Suit.
- The opinions in the Rake Declarations rely upon unrelated patents without providing analysis or evidence.
- Mr. Rake's evidence improperly relies upon dimensions and considers ornamental elements of the claimed designs as functional without analysis or evidence.
- Mr. Rake improperly relies upon comparing unclaimed areas and also relies upon individual differences being 'obvious' instead of comparing the overall impression.

It is my opinion that the overall appearance of each the Infringing Products is not "plainly dissimilar" to one or more of the Claimed Designs of the Patents-In-Issue.

Further, an ordinary observer familiar with the prior art, giving such attention as a purchaser usually gives would find the overall appearance of the Infringing Product to be substantially the same as the overall appearance of one or more of the claimed designs of the Patents-In-Issue in light of the prior art, inducing him or her to purchase each Infringing Product supposing it to be the Claimed Design.

VIII. RESERVATION OF RIGHTS

My current opinions are set forth in this declaration. However, my analysis is continuing, and I thus reserve the right to supplement or amend my declaration and to rely on additional documents, prior art, or discovery or testimony that may come to my attention. Moreover, I may make additions, deletions, or modifications to this declaration and my opinions in the future that would be reflected in my testimony at the trial and/or additional declarations that I may be asked to submit in this case. I also reserve the right to rely on all other expert declarations submitted in this case. For the forthcoming trial, I may prepare diagrams, charts, other demonstratives, and/or demonstrations that illustrate the issues presented. I reserve the right to respond to additional arguments or analyses proffered by expert witnesses and/or the Plaintiff, and I understand that I may be asked to give rebuttal testimony on matters not covered in this expert declaration.

I HEREBY DECLARE under penalty of perjury that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. §1001.

Dated: Sept 24th, 2021

Respectfully Submitted,



Paul Hatch